

About Missouri Limestone

The Missouri limestone used in the Capitol provides an excellent glimpse into the abundant marine animals that once lived in Missouri. The exterior and interior of the building were constructed during the years 1913-1917 from limestone that was quarried, shaped and dressed in southwestern Missouri at Carthage, in central Jasper County, and at Phenix, near Ash Grove, in northwestern Greene County. The limestone in the Capitol’s interior is polished to a glossy, reflective finish. It was during the construction of the interior that polished Missouri limestone gained the distinction of being called “marble.”



Phenix Quarry



Phenix Quarry



Phenix Quarry

Learn More

Missouri State Parks

Experience Missouri’s history and natural resources in several galleries on the first floor of the State Capitol. The Missouri State Museum houses an impressive collection of exhibits portraying the state's natural and cultural history. Museum staff provide tours of the Capitol and also manage Jefferson Landing State Historic Site, including the Elizabeth Rozier Gallery. The Missouri State Museum is part of the Missouri state park system. Missouri State Parks is a division of the Missouri Department of Natural Resources. For more information, contact the museum at 573-751-2854. Learn more at mostateparks.com

Missouri Geological Survey

Travel to Rolla and visit the Edward L. Clark Museum of Missouri Geology to learn more about Missouri fossils, rocks and minerals. The Buehler Building, home to the museum and the Missouri Geological Survey, is faced with limestone quarried from Carthage. It, too, contains a variety of fossils. Visitors to the museum can see corals, bryozoans, crinoids, trilobites, a mastodon tusk, rocks, minerals, arrowheads, and other exhibits related to geology. The museum provides an opportunity for staff to share with adults and children the importance of, and wise use and protection of our state’s natural resources. The Missouri Geological Survey is a division of the Missouri Department of Natural Resources. Located in Rolla at 111 Fairgrounds Road, the museum is open for self-guided tours from 8 a.m. to 5 p.m. weekdays. For more information call 573-368-2100.

Learn more at dnr.mo.gov/geology/edclarkmuseum.htm.
Do you have a question about Missouri geology?
Email question to: askageologist@dnr.mo.gov



CAPITOL FOSSILS

A Guide to Some of the Fossils in the Missouri State Capitol

A Guide to Some of the Fossils in the Missouri State Capitol

Using this guide

Countless fossils are embedded in the marble in the walls and floors, the rotunda, the treads of the stairways and on the exterior of this majestic building. The fossils in this guide can be viewed on an easy walking tour. Hunting for these and other fossils provides a challenge that is entertaining, educational and good exercise, too. Keep in mind that what you see on the flat marble surfaces are two-dimensional cross sections of the fossils, so you need to use your imagination to visualize them in three dimensions. Artist representations are included to illustrate the three-dimensional appearance. Be sure to take a flashlight to get a better view in dimly lit areas.

What are fossils?

The word “fossil,” comes from the Latin word “fossilis,” which means “dug up.” Fossils that call the Capitol home represent a variety of extinct marine invertebrate animal life forms, including brachiopods, bryozoans, clams, corals, crinoids, nautiloids and snails. The fossils featured in this guide are from animals that lived in a warm, shallow sea during what geologists know as the Mississippian Subperiod of the Carboniferous Period, about 335 million years ago.

Official state fossil

The fossil crinoid, which is related to the starfish and sand dollar, is a mineralization of an animal that, because of its plant-like appearance, is often called a sea lily. The crinoid, *Delocrinus missouriensis*, became the state’s official fossil June 16, 1989, after a group of Lee’s Summit school students worked through the legislative process to promote it as a state symbol.

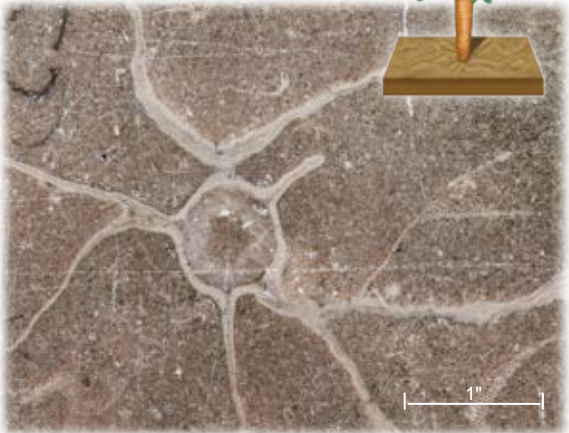
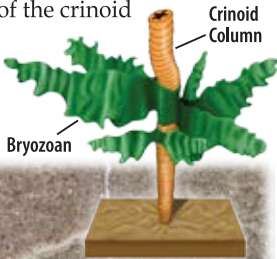


Crinoid stems

1 Bryozoan

1st floor, south entryway, in floor near east stairs

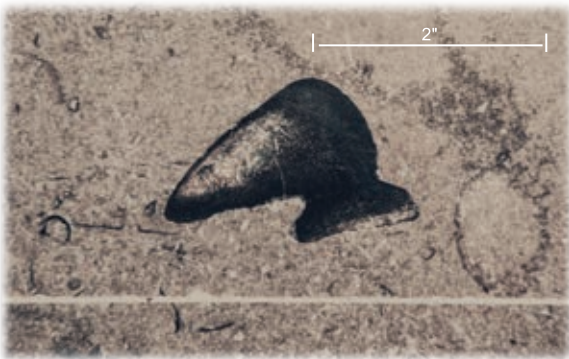
This spectacular fossil reveals information about the relations and interactions between the living organisms. This bryozoan encrusted a living crinoid column and radiated outward. Note the sediment-filled, star-shaped, central opening of the crinoid column, and don't miss the articulate brachiopod and broken pieces of fenestrate bryozoan fronds.



2 Shark Tooth

1st floor, in floor beyond State Seal and arched staircase

Tooth of a large shell-crushing shark. They preyed on invertebrate animals that lived on the seafloor.



3 Brachiopod

1st floor, in wall across from women's restroom

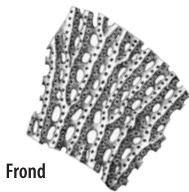
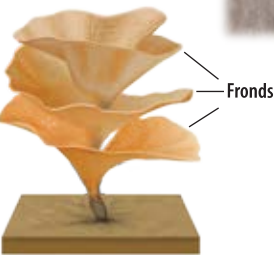
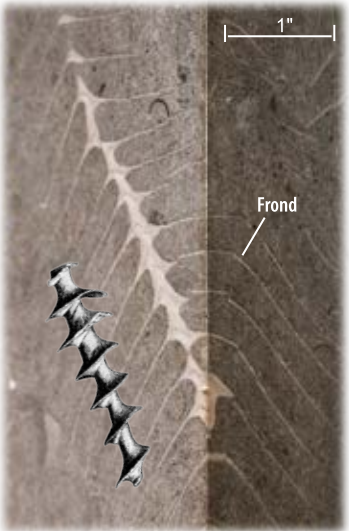
This brachiopod's extended hinge line is so wide it looks winged. The stone mason's blade cut through both valves of the shell of this Spiriferid brachiopod. Brachiopods now live mainly in cold water and low light.



4 Bryozoan

1st floor, in wall near room 107

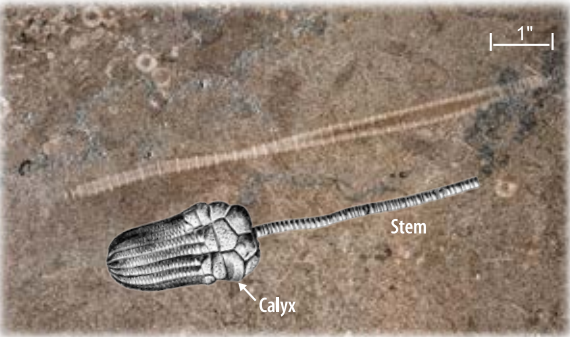
Bryozoans like this unique corkscrew-shaped, windowed or lacy (fenestrate) bryozoan named *Archimedes* can be found throughout the Capitol. Funnel-shaped, fenestrate fronds coil spirally around the central screw axis.



5 Crinoid

1st floor, in wall near Griffin Communications Center

Crinoids were most often preserved as the dismembered individual hard parts (ossicles) of their bodies, which consisted of a segmented column ("stem" that resembles a stack of poker chips), a segmented calyx ("cup" that contained vital organs) and segmented feeding arms (ambulacra) that radiated out from the calyx.



Crinoids often appear as tiny discs of stone that may have a hole (often star-shaped) in their center. Interestingly, every ossicle is composed of a single crystal of calcite. Rarely, whole crinoids were preserved with virtually all parts intact. The bottom of the stem of a crinoid was equipped with a fingered holdfast that was used to attach the animal to something on the seafloor, including rocks, firm sediment, coral colonies and bryozoan colonies. A living crinoid had the ability to release its holdfast, move to a different location, and reattach to something else. Other animals, including bryozoans and corals,



attached themselves to the stems of living crinoids. A fossil does not always only represent a type of plant or animal that lived long ago and is now extinct. For example, hundreds of different species of crinoids exist today in the warm, clear waters of the Pacific and Indian oceans and the Caribbean Sea.

6 Pelecypod (Clam)

1st floor, in wall across from room 118

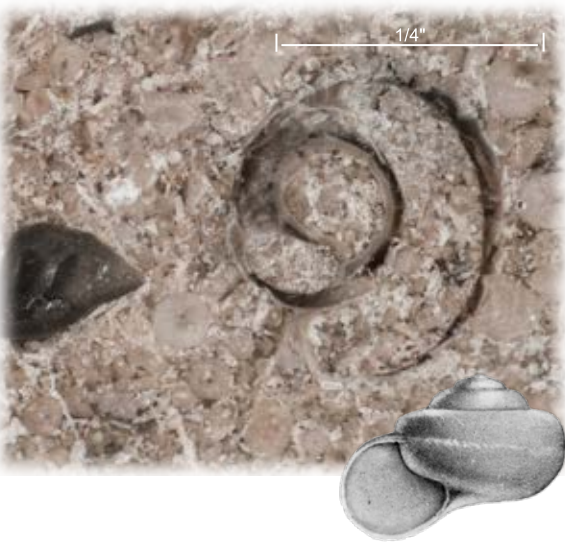
The saw cut missed the winged ears (auricles) of what appears to be the shell of a scallop (pecten). This scallop, like those living today, moved from place to place with a certain amount of agility by closing its open shells (valves), thereby forcibly expelling the water.



7 Gastropod

2nd floor, in wall across hall from room 221

Gastropods are invertebrate animals that include snails and slugs. This snail fossil is accompanied by many broken pieces of crinoids.



2nd floor, in wall near room 227

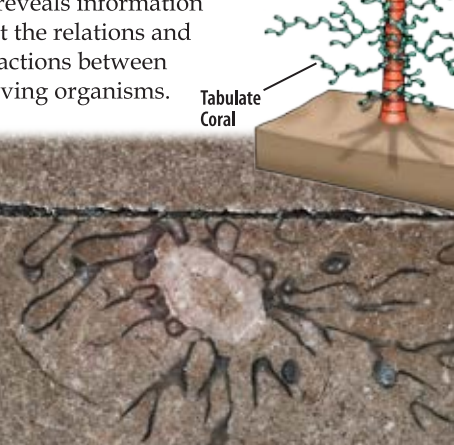
Figure 1 shows a large, dark, elongated fossil specimen, likely a brachiopod, with a scale bar indicating 1/4 inch. An inset shows a smaller, detailed view of the fossil's surface texture.

2nd floor, in wall across from room 236

3rd floor, in floor near elevators

4th floor, in floor across from room 406

of the crinoid column.
This spectacular fossil also reveals information about the relations and interactions between the living organisms.



The photograph shows a fossilized crinoid column and tabulate coral on a rock surface. The crinoid column is a central, reddish-brown, segmented structure. It is surrounded by a complex network of green, branching structures. The entire fossil is embedded in a light-colored, textured rock matrix. A 3D diagram above the fossil illustrates the structure of the crinoid column and the tabulate coral. The diagram shows a central, segmented column (labeled 'Crinoid Column') with a complex, branching network of structures (labeled 'Tabulate Coral') extending from its base. A scale bar in the bottom right corner indicates a length of 1 inch.

Crinoid Column

Tabulate Coral

1"

Don't miss the numerous fossils on the exterior of the Capitol. Many fossils can be found in most of the limestone blocks surrounding the statue of President Thomas Jefferson, located on the south side of the building, as well as on the limestone columns and in the block tiles that form the walkway around the building.

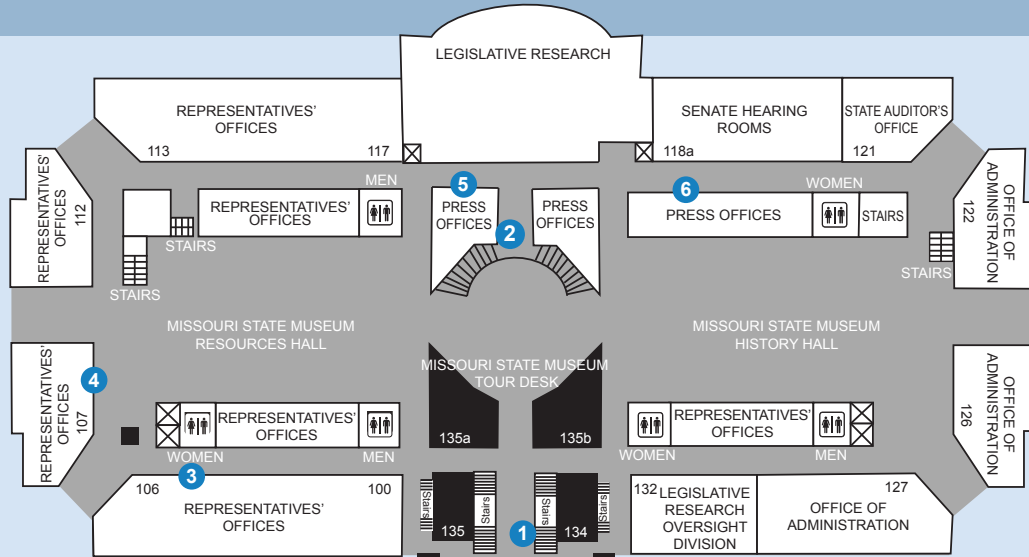


Bryozoan attached to crinoid column

NOTES

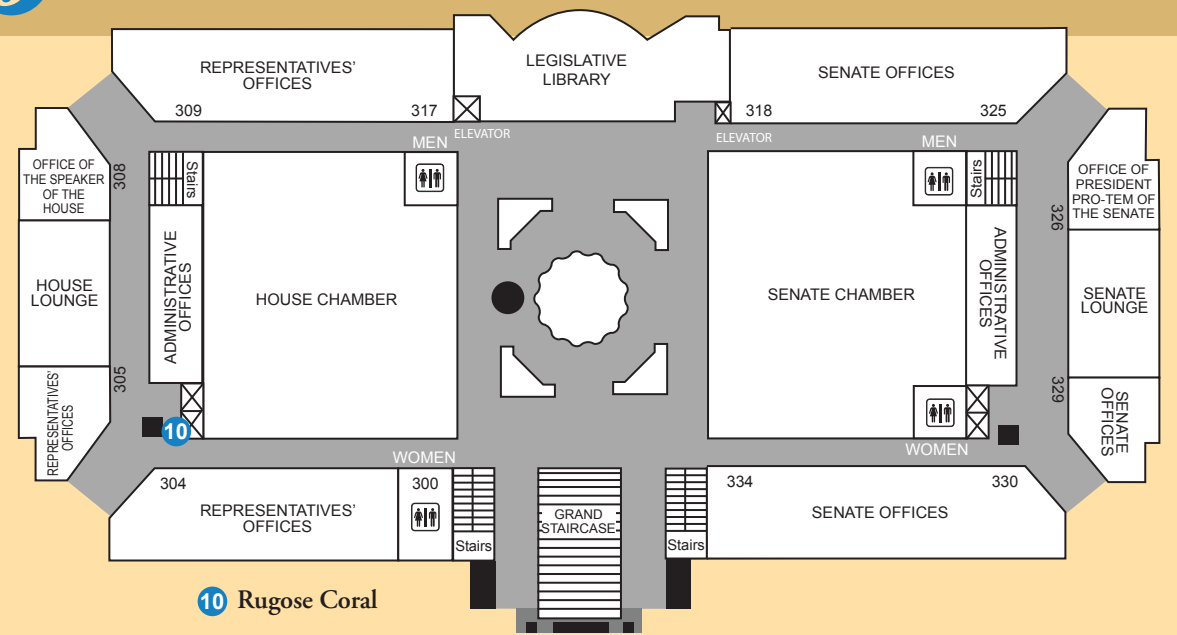


1 First Floor



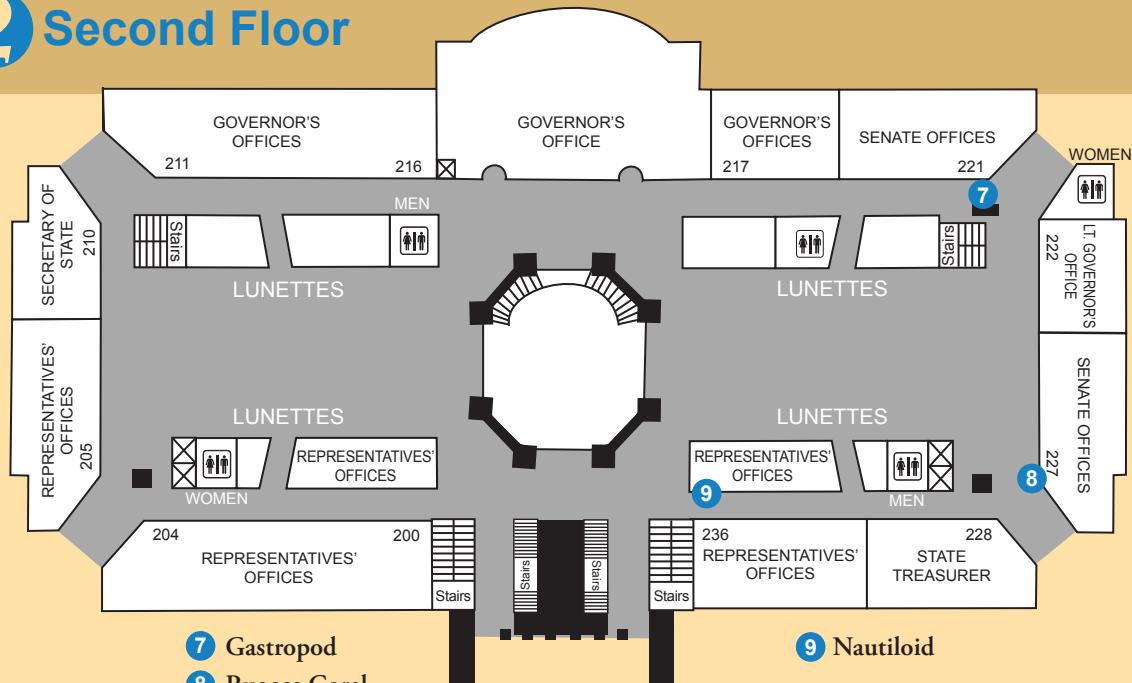
- 1 Bryozoan
- 2 Shark Tooth
- 3 Brachiopod
- 4 Bryozoan
- 5 Crinoid
- 6 Pelecypod

3 Third Floor



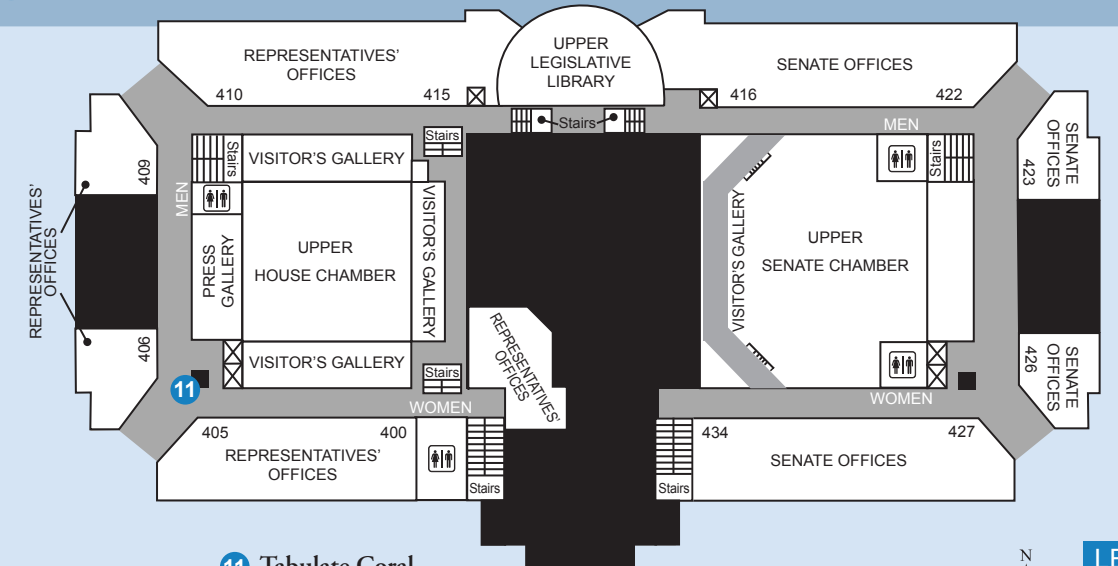
- 10 Rugose Coral

2 Second Floor



- 7 Gastropod
- 8 Rugose Coral
- 9 Nautiloid

4 Fourth Floor



- 11 Tabulate Coral



- Elevator
- Restroom
- Accessible